

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 157 AND SEARLES ROAD IN BALTIMORE COUNTY. MD 157 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THE INTERSECTION OPERATION WILL BE CHANGED FROM NEMA SIX PHASE TO A NEMA FOUR PHASE, ELIMINATING THE LEFT TURN PHASES FOR N.B.AND S.B.MD 157.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH VIDEO DETECTION FOR SIDE STREETS.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED,EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO DETECTION INTERFACE EQUIPMENT,AND ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

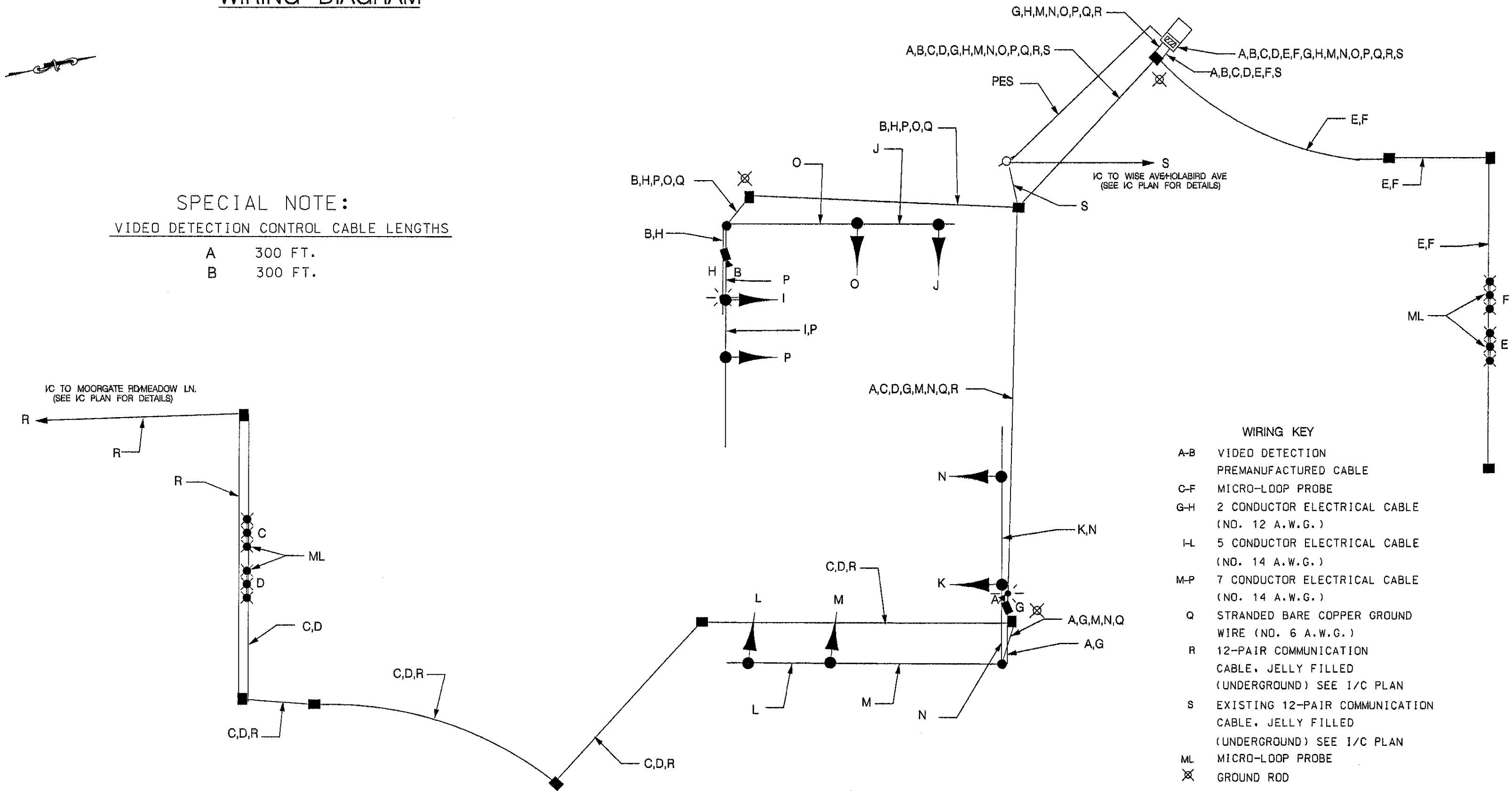
SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE,AND PHONE NUMBER.

PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 | 4 6 8 |
| PHASE 2 & 6 | G | G | G | G | G | G | R | R | R | R |
| 2 & 6 CHANGE | Y | Y | Y | Y | Y | Y | R | R | R | R |
| PHASE 4 & 8 | R | R | R | R | R | R | G | G | G | G |
| 4 & 8 CHANGE | R | R | R | R | R | R | Y | Y | Y | Y |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R |

WIRING DIAGRAM



EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR.

| ITEM NO. | QUANTITY | DESCRIPTION |
|----------|----------|--|
| 1001 | 3 EA | MAINTENANCE OF TRAFFIC |
| 2002 | 3 CY | TEST PIT EXCAVATION |
| 5006 | 25 LF | FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING |
| 8001 | 12 CY | FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION |
| 8009 | 2 EA | FURNISH AND INSTALL 300 FT. VIDEO DETECTION CONTROL CABLE |
| 8019 | LS | REMOVE AND DISPOSE OF EXISTING EQUIPMENT |
| 8027 | 15 LF | FURNISH AND INSTALL 4 IN. X 4 IN. WOOD SUPPORT |
| 8029 | 345 LF | FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE |
| 8035 | 185 LF | FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED |
| 8036 | 220 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED |
| 8038 | 605 LF | FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED |
| 8039 | 55 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED |
| 8042 | 130 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - SLOTTED |
| 8045 | 1 EA | FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS, 60 AMPS |
| 8046 | 50 LF | FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO.4 AWG |
| 8050 | 4 EA | FURNISH AND INSTALL NON INVASIVE PROBE WITH 500 FT. LEAD-IN |
| 8052 | 12 EA | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 8054 | 7 SF | INSTALL GROUND MOUNTED SIGN |
| 8055 | 46 SF | INSTALL OVERHEAD SIGN |
| 8056 | 2 EA | FURNISH AND INSTALL VIDEO DETECTION CAMERA |
| 8060 | 1 EA | FURNISH AND INSTALL 50 FT./60 FT. TWIN MAST ARMS AND POLE |
| 8064 | 1 EA | FURNISH AND INSTALL 27 FT. MAST ARM POLE WITH TWIN 50 FT./60 FT. MAST ARMS |
| 8069 | 2 EA | FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE |
| 8073 | 3 EA | FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH |
| 8075 | 24 EA | FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION |
| 8078 | 2 EA | CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE |
| 8083 | 100 LF | FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG |
| 8084 | 880 LF | FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO. 14 AWG |
| 8085 | 400 LF | FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 12 AWG TC |
| 8087 | 40 LF | FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR |
| 8089 | 2 EA | FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM ON SIGNAL STRUCTURE |
| 8094 | 1 EA | INSTALL CONTROLLER AND CABINET BASE MOUNT |

EQUIPMENT LIST "C"

C. MSHA FORCES SHALL REMOVE CONTROLLER AND ALL AUXILIARY EQUIPMENT. CABINET AND ALL OTHER MATERIAL TO BE REMOVED BY THE CONTRACTOR AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 321-2781

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 321-2781

MS. SUENETTE POPE
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 321-2841

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DUFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY MSHA AND INSTALLED BY THE CONTRACTOR.

| ITEM NO. | QUANTITY | DESCRIPTION |
|----------|----------|---|
| 9016 | 1 EA | 4-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER |
| 9042 | 1 EA | CONTROLLER ASC II WITH TELEMETRY |
| 9044 | 1 EA | BASE MOUNTED CABINET NEMA SIZE 6 |
| 9086 | 2 EA | VIDEO DETECTION INTERFACE EQUIPMENT 1-4 CAMERAS |
| 9571 | 53 SF | ALUMINUM SHEET 1 EACH R5-1 SIGN (30" X 30") GROUND MOUNT 2 EACH D3-1 DUAL FACE SIGN "SEARLES RD" (VAR. X 18") MAST ARM MOUNT 2 EACH M95-1 (72" X 24") MAST ARM MOUNT |

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101

FAX (410) 923-6473

EMAIL: TRACONCEPT@AOL.COM

SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 157 AND SEARLES ROAD

| | | | |
|--------------------|---------------------|-------------------|------------------|
| DRAWN BY: M.HOWELL | F.A.P. NO. N/A | TS NO. 4340 | SHEET NO. 4 OF 5 |
| CHECKED BY: NONE | S.H.A. NO. AT357185 | T.I.M.S. NO. 6350 | |
| SCALE: NONE | COUNTY: BALTIMORE | | |
| DATE: 8/2004 | LOG MILE: | | |